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10/004,223

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Lee Kamensky

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(c/o MICROSOFT CORPORATION)  
INTELLECTUAL PROPERTY DEPARTMENT  
2555 GRAND BOULEVARD  
KANSAS CITY, MO 64108-2613

EXAMINER

LIN, JASON K

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/004,223	<b>Applicant(s)</b> KAMENTSKY ET AL.	
	<b>Examiner</b> JASON K. LIN	<b>Art Unit</b> 2425	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date _____.<br>5) <input type="checkbox"/> Notice of Informal Patent Application<br>6) <input type="checkbox"/> Other: _____. |
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### **DETAILED ACTION**

1. This office action is responsive to application No. 10/004,223 filed on 05/29/2009.

**Claims 1-5 and 7-17** are pending and have been examined.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/29/2009 has been entered.

#### ***Claim Rejections - 35 USC § 101***

3. **Claims 1-5 and 7-17** are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to particular machine, or (2) transform underlying subject matter (such as an article or material) to a different state or thing. See page 10 of In Re Bilski 88 USPQ2d 1385. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The method including scheduling transmission, identifying, associating, notifying, transmitting bulk data content to a subset of end node devices, scanning and selectively receiving subset of bulk data content is broad enough that the claim could be completely performed mentally, verbally or without a machine

nor is any transformation apparent. For example the steps of scheduling transmission, identifying, associating, notifying, transmitting bulk data content to a subset of end node devices, scanning and selectively receiving subset of bulk data content does not require a machine and could be carried out by a human operator manually, by handing out bulk data content (not solely limited to things such as newspapers, articles, fliers, etc), and scheduling a time to transmit (give to users). The process of scanning and selectively receiving subset of bulk data content can also be carried out manually by a human operator. Since these claims are not tied to a machine and do not require the particulars of a machine to function, they do not qualify as a statutory process.

#### ***Response to Arguments***

4. Applicant's arguments with respect to **Claims 1-5 and 7-17** have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960).

Consider **claim 1**, Levitan teaches a method for content synchronization for bulk data transfer in a multimedia network (Fig.1), comprising:

scheduling transmission of bulk data content push to a plurality of end node devices, the schedule including identifying a subset of end node devices (Col 3: line 66 - Col 4: line 3, Col 4: lines 42-50 teaches the VTV server supplying clients with timetable listings of when file will be scheduled for transmission, and that these time tables can be transmitted to just certain authorized users);

associating the subset of end node devices with a subset of the bulk data content; notifying each end node device of the scheduled bulk data transmission on an individual basis, each such individual notification including sending information over the network and each such individual notification indicates to each end node device the subset of bulk data content push to selectively receive, the notification occurring before the bulk data transmission begins (Col 4: lines 42-48 teaches associating only those specific content for particular users. As well as having only certain content meant specifically for authorized users. The time tables for the scheduled transmission of content sent over the network is then only send notifications to these clients that are on the authorization list, so that only these authorized users can access data that was solely intended for them);

transmitting the bulk data content push via broadcast (Col 2: lines 51-55, Col 3: lines 49-57);

scanning the bulk data content push to identify the subset of bulk data content push indicated by the notification; selectively receiving receive the identified subset of bulk data content push at the subset of end node devices

during the scheduled transmission, the selective receiving is based on the notification information received by each end node device (Col 2: lines 60-63 teaches that content if necessary is delivered to authorized users. Col 4: lines 42-50 teaches that only certain users are transmitted timetables of certain content that are meant specifically for these users. Col 3: line 66 – Col 4: line 5 teaches users only downloading content of interest to the device. *Therefore, in the case of content only intended for specific users notified by timetables sent only to specific users, those users would only download the content that was meant for it*);

Levitan does not explicitly teach sending information over the network indicating an expected end time for the scheduled transmission;

transmitting the bulk data content push via broadcast prior to the expected end time;

at the expected end time for the scheduled transmission, each end node device determining if the bulk data content push was received as expected;

if not received as expected, sending a failure indication; and

if received as expected, activating the content.

In an analogous art Kamisaka teaches sending information over the network indicating an expected end time for the scheduled transmission (Col 13: line 48 - Col 14: line 2 teaches notification of the scheduled transmission indicating an expected end time of the transmission are sent and registered in home terminal 5-Fig.1 beforehand. Col 7: lines 4-11, Col 9: lines 17-48, Col 12:

lines 29-33, Col 13: lines 21-26 teaches that only data pertaining to the pertinent terminal in which the terminal ID is present in the control data part will the commands and data from the frame be registered/executed);

transmitting the bulk data content push via broadcast prior to the expected end time (Col 1: lines 57-59, Col 7: line 22 – Col 8: line 3 teaches the transmission of the content. Col 13: lines 48-55 teaches what the receiver does the data is not received at the expected end time);

at the expected end time for the scheduled transmission, each end node device determining if the bulk data content push was received as expected (Col 13: line 47 – Col 14: line 2);

if not received as expected, sending a failure indication (Col 13: line 47 – Col 14: line 2);

if received as expected, activating the content (Col 9: line 44 – Col 10: line 17).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Levitan's system to include sending information over the network indicating an expected end time for the scheduled transmission; transmitting the bulk data content push via broadcast prior to the expected end time; at the expected end time for the scheduled transmission, each end node device determining if the bulk data content push was received as expected; if not received as expected, sending a failure indication; and if received as expected, activating the content, as taught by Kamisaka, for the advantage of notifying the

receiver when to expect termination of data transmission so that communication channels will not need to remain open for longer than necessary, allowing for the reception device to cease reception activities saving power consumption, and allowing for the receiver to cope with conditions where it may fail to properly receive data, etc (Kamisaka - Col 13: lines 29-35).

Consider **claim 11**, Kamisaka further teaches wherein the content is a plurality of promotions (Col 5: lines 35-37, 53-54, Col 10: lines 34-37).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include wherein the content is a plurality of promotions, as further taught by Kamisaka, for the advantage of allowing advertisers to provide users with intended content in a robust and reliable manner, as well as provide content intended to particular viewers.

Consider **claim 12**, Kamisaka further teaches wherein the scheduled transmissions are scheduled multicast transmissions (Col 1: lines 57-59, Col 3: lines 4-10, Col 7: line 22 – Col 8: line 3; Col 13: lines 49-62).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include wherein the content is a plurality of promotions, as further taught by Kamisaka, for the advantage of allowing the system to provide content to all users at once in a robust environment in an efficient manner, conserving transmission bandwidth.



Consider **claim 13**, Levitan and Kamisaka teach wherein the scheduled transmissions are scheduled broadcast transmissions (Levitan – Col 3: lines 45-58).

Consider **claim 14**, Kamisaka further teaches wherein the content is transmitted multiple times during the scheduled transmissions to ensure that the plurality of end node devices receive the subset of content (Col 13: lines 29-47).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include wherein the content is transmitted multiple times during the scheduled transmissions to ensure that the plurality of end node devices receive the subset of content, as further taught by Kamisaka, for the advantage of providing multiple levels of redundancy, reducing reception error queries, and maximizing the use of transmission bandwidth, so that few if any devices would require retransmission of content.

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), and further in view of Gupta (US 6,577,599).

Consider **claim 2**, Levitan and Kamisaka do not explicitly teach retransmitting the bulk content to the failing network device via a unicast.

In an analogous art Gupta teaches, retransmitting the bulk content (missed data packets) to the failing network device via a unicast (Gupta – Step 520 in Fig.5, Col 7: lines 35-41 and Col 12: lines 37-51).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include retransmitting the bulk content (missed data packets) to the failing network device via a unicast, as taught by Gupta, for the advantage of preventing network congestion by individually retransmitting the missed data packets to the appropriate receivers.

8. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), in view of Gupta (US 6,577,599), and further in view of Carr (US 6,574,795).

Consider **claim 3**, Levitan, Kamisaka, and Gupta do not explicitly teach wherein the failure indication indicates a subset of unreceived content and, transmitting only the indicated subset.

In an analogous art Carr teaches wherein the failure indication indicates a subset of unreceived content and, transmitting only the indicated subset (Col 8: line 62 – Col 9: line 10, Col 5: lines 40-50).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan, Kamisaka, and Gupta to include wherein the failure indication indicates a subset of unreceived content and, transmitting only the indicated subset, as taught by Carr, for the advantage of allowing the

transmitter to be easily aware of the necessary content requiring retransmission, and conserving valuable transmission bandwidth by only sending the necessary content, instead of flooding the transmission line with unnecessary data.

9. **Claims 4 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), and further in view of McNeil (US 6,421,706).

Consider **claim 4**, Levitan and Kamisaka do not explicitly teach wherein the step of transmitting the bulk content additionally comprising using a unicast UDP protocol.

In an analogous art McNeil teaches, wherein the step of transmitting the bulk content additionally comprising using a unicast UDP protocol (Col 7: lines 62-66).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include unicast UDP protocol data transmission, as taught by McNeil, for the advantage of providing an alternative means of data transmission in cases where an endpoint device fails to receive low bit rate video and audio data (McNeil - Col 7: lines 54-66).

Consider **claim 8**, Levitan, Kamisaka, and McNeil teach wherein the step of selectively receiving (Col 2: lines 60-63 teaches that content if necessary is delivered to authorized users. Col 4: lines 42-50 teaches that only certain users

are transmitted timetables of certain content that are meant specifically for these users. Col 3: line 66 – Col 4: line 5 teaches users only downloading content of interest to the device. *Therefore, in the case of content only intended for specific users notified by timetables sent only to specific users, those users would only download the content that was meant for it*) content comprises:

Kamisaka further teaches listening to the scheduled transmission for the subset of content on the destination port address at the data transmission times; selecting the subset of content during the scheduled transmissions; and receiving the subset of content (Col 2: lines 33-41, Col 12: lines 29-33 teaches that control information is stored on the receiver specifying what information items are to be registered as reception. Col 8: line 67 – Col 9: line 1, Col 9: lines 44-47 teaches reception of the content. Col 7: lines 4-11, Col 9: lines 17-24, Col 13: lines 21-26 teaches control data part of the control frame shown in Fig.4A contains individual terminal IDs for which the data is intended for. *Therefore when receiving content, the receiver will have to identify the content being transmitted and see what information items are to be received and stored*).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan, Kamisaka, and McNeil to include listening to the scheduled transmission for the subset of content on the destination port address at the data transmission times; selecting the subset of content during the scheduled transmissions; and receiving the subset of content, as further taught by Kamisaka, for the advantage of allowing the device to be actively ready at the

time of transmission, so as to not miss the scheduled transmission intended for that device, providing for more reliable reception of content.

10. **Claims 5 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), and further in view of in view of Miura et al. (US 6,483,848).

Consider **claim 5**, Levitan and Kamisaka do not explicitly teach wherein the step of notifying the end node devices includes an expected start time and duration information.

In an analogous art Miura teaches, wherein the step of notifying the end node devices includes an expected start time and duration information (schedule date and time, reception duration; Col 22: lines 36-66, Col 23: line 23 - Col 24: line 3).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include the step of notifying the end node devices includes an expected start time and duration information, as taught by Miura, for the advantage of allowing the receiver to know when to supply power to its receiving portion in order to receive the transmitted data (Miura - Col 22: line 62 - Col 23: line 3) and when to end supply of power in order to conserve energy consumption of the receiver.

Consider **claim 7**, Kamisaka further teaches wherein the step of notifying the plurality of end node devices includes delivering content control data comprising destination port addresses (Col 7: lines 4-11, Col 9: lines 17-24, Col 13: lines 21-26 teaches control data part of the control frame shown in Fig.4A contains individual terminal IDs for which the data is intended for), but does not explicitly teach data transmission times for the subset of content.

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include wherein the step of notifying the plurality of end node devices includes delivering content control data comprising destination port addresses, as further taught by Kamisaka, for the advantage of ensuring that specific data is meant only for selected terminals, controlling the flow of content in a desired manner.

Levitan and Kamisaka do not explicitly each wherein data transmission times for the subset of content.

In an analogous art Miura teaches, data transmission times for the subset of content (schedule date and time, reception duration; Col 22: lines 36-66, Col 23: line 23 - Col 24: line 3).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include data transmission times for the subset of content, as taught by Miura, for the advantage of allowing the receiver to know when to supply power to its receiving portion in order to

receive the transmitted data (Miura - Col 22: line 62 - Col 23: line 3) and when to end supply of power in order to conserve energy consumption of the receiver.

11. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), in view of McNeil (US 6,421,706), and further in view of Kadansky et al. (US 6,507,562).

Consider **claim 9**, Levitan, Kamisaka and McNeil do not explicitly teach wherein the destination port addresses are multicast port addresses.

In an analogous art Kadansky teaches, wherein the destination port addresses are multicast port addresses (Col 37: lines 10-21).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan, Kamisaka, and McNeil to include wherein the destination port addresses are multicast port addresses, as taught by Kadansky, for the advantage of providing a structure for easy distribution of content without further congesting the network, allowing for multiple devices to receive content at once alleviating unicast loads which would be taxing to the provider and the network.

12. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), in view of McNeil (US 6,421,706), and further in view of Wada (US 2003/0007481).

Consider **claim 10**, Levitan, Kamisaka, and McNeil do not explicitly teach wherein the destination port addresses are broadcast port addresses.

In an analogous art Wada teaches, wherein the destination port addresses are broadcast port addresses (Paragraph 0164: lines 1-14).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan, Kamisaka, and McNeil to include wherein the destination port addresses are broadcast port addresses, as taught by Wada, for the advantage of transmitting data to all the devices attached to a network (Wada - Paragraph 0164: lines 12-14).

13. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960) in view of Gupta (US 6,577,599) and further in view of Kadansky et al. (US 6,507,562).

Consider **claim 15**, Levitan, Kamisaka, and Gupta teaches sending a failure notification (Kamisaka - Col 13: lines 51-55), but does not explicitly teach wherein a failure indication is sent again if the retransmission fails.

In an analogous art Kadansky teaches, wherein a failure indication is sent again if the retransmission fails (Col 5: lines 54-64).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan, Kamisaka, and Gupta to include wherein a failure indication is sent again if the retransmission fails, as taught by Kadansky, for the advantage of providing a more reliable and robust system in which the



client is more guaranteed to receive the provided content, creating a more dependable system.

14. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960) in view of Miura et al. (US 6,483,848) and in further view of Dillon et al. (US 2003/0206554).

Consider **claim 16**, Levitan, Kamisaka, and Miura do not explicitly teach wherein a module ID is included in the failure notification.

In an analogous art Dillon teaches, wherein a module ID (unique package identifiers) is included in the failure notification (Paragraph 0135: lines 5-12)

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kamisaka, and Miura to include a module ID in the failure notification, as taught by Dillon, for the advantage of identifying the data content being requested for retransmission.

15. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Levitan (US 6,698,023), in view of Kamisaka et al. (US 5,708,960), and further in view of Carr (US 6,574,795).

Consider **claim 17**, Levitan teaches a method for content synchronization for bulk data transfer in a multimedia network (Fig.1), comprising:

scheduling transmission of bulk data content to a plurality of end node devices, the schedule including identifying a subset of end node devices (Col 3:

line 66 - Col 4: line 3, Col 4: lines 42-50 teaches the VTV server supplying clients with timetable listings of when file will be scheduled for transmission, and that these time tables can be transmitted to just certain authorized users);

associating the subset of end node devices with a subset of the bulk data content; notifying each end node device of the scheduled bulk data transmission on an individual basis, each such individual notification including sending information over the network and each such individual notification indicates to each end node device the subset of bulk data content push to selectively receive, the notification occurring before the bulk data transmission begins (Col 4: lines 42-48 teaches associating only those specific content for particular users. As well as having only certain content meant specifically for authorized users. The time tables for the scheduled transmission of content sent over the network is then only send notifications to these clients that are on the authorization list, so that only these authorized users can access data that was solely intended for them);

transmitting the bulk data content via broadcast (Col 2: lines 51-55, Col 3: lines 49-57);

scanning the bulk data content to identify the subset of bulk data content indicated by the notification; selectively receiving the identified subset of bulk data content at the subset of end node devices during the scheduled transmission, the selective receiving is based on the notification information received by each end node device (Col 2: lines 60-63 teaches that content if

necessary is delivered to authorized users. Col 4: lines 42-50 teaches that only certain users are transmitted timetables of certain content that are meant specifically for these users. Col 3: line 66 – Col 4: line 5 teaches users only downloading content of interest to the device. *Therefore, in the case of content only intended for specific users notified by timetables sent only to specific users, those users would only download the content that was meant for it);*

Levitan does not explicitly teach sending information over the network indicating an expected end time for the scheduled transmission;

transmitting the bulk data content push via broadcast prior to the expected end time;

at the expected end time for the scheduled transmission, each end node device determining if the bulk data content was received as expected;

upon determining that the bulk data content was not received as expected, sending a failure indication; and

upon receiving the failure notification, retransmitting the bulk content to the network device that sent the failure indication, wherein the retransmission occurs using a more reliable transport mechanism.

In an analogous art Kamisaka teaches sending information over the network indicating an expected end time for the scheduled transmission (Col 13: line 48 - Col 14: line 2 teaches notification of the scheduled transmission indicating an expected end time of the transmission are sent and registered in home terminal 5-Fig.1 beforehand. Col 7: lines 4-11, Col 9: lines 17-48, Col 12:

lines 29-33, Col 13: lines 21-26 teaches that only data pertaining to the pertinent terminal in which the terminal ID is present in the control data part will the commands and data from the frame be registered/executed);

transmitting the bulk data content push via broadcast prior to the expected end time (Col 1: lines 57-59, Col 7: line 22 – Col 8: line 3 teaches the transmission of the content. Col 13: lines 48-55 teaches what the receiver does the data is not received at the expected end time);

at the expected end time for the scheduled transmission, each end node device determining if the bulk data content was received as expected (Col 13: line 47 – Col 14: line 2);

upon determining that the bulk data content was not received as expected, sending a failure indication (Col 13: line 47 – Col 14: line 2);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Levitan's system to include sending information over the network indicating an expected end time for the scheduled transmission; transmitting the bulk data content push via broadcast prior to the expected end time; at the expected end time for the scheduled transmission, each end node device determining if the bulk data content was received as expected; upon determining that the bulk data content was not received as expected, sending a failure indication, as taught by Kamisaka, for the advantage of notifying the receiver when to expect termination of data transmission so that communication channels will not need to remain open for longer than necessary, allowing for the reception

device to cease reception activities saving power consumption, and allowing for the receiver to cope with conditions where it may fail to properly receive data, etc (Kamisaka - Col 13: lines 29-35).

Levitan and Kamisaka do not explicitly teach upon receiving the failure notification, retransmitting the bulk content to the network device that sent the failure indication, wherein the retransmission occurs using a more reliable transport mechanism;

In an analogous art Carr teaches upon receiving the failure notification, retransmitting the bulk content to the network device that sent the failure indication, wherein the retransmission occurs using a more reliable transport mechanism (Col 5: lines 40-50, Col 8: line 62 – Col 9: line 10);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Levitan and Kamisaka to include upon receiving the failure notification, retransmitting the bulk content to the network device that sent the failure indication, wherein the retransmission occurs using a more reliable transport mechanism, as taught by Carr, for the advantage of ensuring that users are able to receive necessary data, in a manner that is less error-prone to failure, minimizing chances of another non-successful transmission, saving transmission bandwidth and providing a more robust system that won't frustrate the user.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Lin/  
Examiner, Art Unit: 2425

/Brian T. Pendleton/  
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